

ABSTRACT

The invention includes a circuit for applying a transfer function to correct values of an input signal. The transfer function is approximated by piecewise-linear segments generated by a plurality of segment operators. An input line in the circuit receives the input signal. Window detectors determine a value of the input signal, and select one of the segment operators based on the value of the input signal. The selected segment operator applies a correction value to correct the value of the input signal. Each of the segment operators generates a different linear segment of the piecewise-linear segments. Each of the segment operators simultaneously generates a respective correction value responsive to the value of the input signal. In one embodiment, a multiplexer selects one of the respective correction values to correct the value of the input signal.